

REMARKS

Claims 1-3, 5-9, 11-15, 17-21, 23-27 and 29-30 are pending in the present application. Claims 1-3, 5-9, 11-15, 17-21, 23-27 and 29-30 were amended in this response. Claims 4, 10, 16 and 22 were canceled, without prejudice. No new matter has been introduced as a result of the amendments.

Claims 1-3, 5-9, 11-15, 17-21, 23-27 and 29-30 were rejected under 35 U.S.C. §102(e) as being anticipated by *Wright et al.* (US Patent 6,366,776). Claims 4, 10, 16, 22 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Wright et al.* (US Patent 6,366,776) in view of *Rostamy et al.* (US Patent 6,330,431). Applicants respectfully traverse these rejections.

Specifically, the cited art, alone or in combination, fails to teach “determining a power level measurement of the transmission burst based on a signal-to-noise ratio of the transmission burst; and transmitting a message specifying the determined power level measurement to the terminal” as recited in claim 1 and similarly recited in claims 7, 13, 19 and 25.

Regarding *Wright*, the document teaches that the output from the channelizer/matched filter 142 is transmitted to a sync burst processor 143 which measures the received energy and time of arrival at satellite 100 of uplink sync bursts in each uplink frame (FIG. 9; col.16, lines 7-9; col. 25, lines 22-26). However, the Office Action fails to address that *Wright* also discloses the details of this measuring in U.S. patent application Ser. No. 09/408,261, issued as U.S. Patent 6,434,361, referred hereinafter as *Carrozza* (see *Wright*, col. 15, lines 9-14).

Turning to *Carrozza*, the disclosure teaches that a sync burst memory stores at least one sync burst transmitted from a terrestrial terminal to a processing satellite, where the sync burst is formed from a quadrature pair sample set {p, q} (col. 2, line 63 – col. 3, line 3). After the sync burst is stored, the following steps are taken to determine the presence and timing of the signal:

- A first double correlator performs an early correlation and a late correlation of the p samples relative to a sync burst slot to generate an early correlation P_e and a late correlation P_l (col. 3, lines 3-6; col. 8, lines 35-48);
- A second double correlator performs an early correlation and a late correlation of the q samples relative to the sync burst slot to generate an early correlation Q_e and a late correlation Q_l (col. 3, lines 6-10; col. 8, lines 35-48); and

- A modulus module determines an early modulus Re and a late modulus Rl from the early correlations Pe and Qe and from the late correlations Pl and Ql such that the early modulus Re and late modulus Rl are used to determine if the sync burst is present in the sync burst slot and if the sync burst is early or late relative to the sync burst slot (col. 3, lines 10-15).

Carrozza teaches that, since the synchronization burst processor 56 does not know beforehand whether the sync burst 52 is actually present in the sync burst slot 50 and/or whether the sync burst's alignment is sufficiently precise for the synchronization burst processor 56 to provide a good decision regarding the burst alignment, the values Re and Rl are tested in a test functions module 80 to provide an indication of whether a well aligned sync burst 52 is present and, if so, whether it is early or late relative to the corresponding sync burst slot 50 (col. 8, line 65 – col. 9, line 7; compare FIG. 4 of *Carrozza* to FIG. 9, ref. 143 in *Wright*). Accordingly, an energy test, based on the sum of Re and Rl, is performed and compared to a threshold (*Carrozza*, col. 9, lines 8-10). If the threshold is not exceeded, an "absent" outcome is declared.

As such, it is clear from the teaching of *Carrozza*, which was incorporated by reference into the teaching of *Wright*, that the measurement of "received energy" is not a quantifiable power level, but only a summed modulus that is processed to determine the presence of a signal (see also *Carrozza*, col. 10, lines 50-60). And even if the modulus of *Carrozza* and *Wright* is interpreted by the Examiner as a "power level", the above arguments clearly demonstrate that the power level measurement of the transmission burst is not based on a signal-to-noise ratio of the transmission burst. This has apparently been conceded by the Office Action as well (see page 5, paragraph 5). Accordingly, Applicant submits that the rejection under 35 U.S.C. §102 is improper and should be withdrawn.

The Office Action also cited *Rostamy* for the proposition of measuring burst quality via signal-to-noise ratio (col. 4, lines 50-51). While *Rostamy* generally discloses calculating burst quality with respect to the C/N ratio, the teaching of *Rostamy* is wholly inapplicable to *Wright*, and there is no teaching, suggestion or motivation for one of ordinary skill in the art to combine the references in the manner suggested in the Office Action. In making a determination that an invention is obvious, the Patent Office has the initial burden of establishing a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S. P.Q.2d 1955, 1956 (Fed. Cir. 1993). "If

the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent.” *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). (see MPEP 2142).

Further, the Federal Circuit has held that it is “impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). “One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention” *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Moreover, the Federal Circuit has held that “obvious to try” is not the proper standard under 35 U.S.C. §103. *Ex parte Goldgaber*, 41 U.S.P.Q.2d 1172, 1177 (Fed. Cir. 1996). “An-obvious-to-try situation exists when a general disclosure may pique the scientist curiosity, such that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claim result would be obtained if certain directions were pursued.” *In re Eli Lilly and Co.*, 14 U.S.P.Q.2d 1741, 1743 (Fed. Cir. 1990).

First of all, the configuration in *Wright* teaches that the sync burst processor 143 measures received energy and time of arrival at the satellite of uplink sync bursts in each uplink frame (col. 15, lines 7-9; col. 25, lines 22-26). In contrast, *Rostamy* calculates burst quality at

the receiver end using multiple antennas (col. 3, lines 2-6). Second, as argued above, *Wright* measures "received energy" by summing a modulus of that is processed to determine the presence of a signal. In contrast, *Rostamy* measures the burst quality by forming an A-matrix (col. 3, lines 2-23), and filtering the diagonal and off-diagonal elements of the matrix (col. 4, lines 50-55). Finally, as a result of the filtering in *Rostamy*, sources of error are filtered out in determining the burst quality (col. 3, lines 48-58; col. 4, lines 12-14). However, the disclosure in *Wright* explicitly relies on an error count indicator to incrementally adjust the transmitted power level (col. 26, lines 47-56). It clearly follows that there is no conceivable teaching, suggestion or motivation for combining these two references, as they operate under two different principles of operation (see MPEP 2143.02). Accordingly, Applicant submits the rejection under 35 U.S.C. §103 is improper and should be withdrawn.

In light of the above, Applicants respectfully submit that claims 1-3, 5-9, 11-15, 17-21, 23-27 and 29-30 are both novel and non-obvious over the art of record. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any additional fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket no. (0115426-938) on the account statement.

Respectfully submitted,

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